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A Study to Evaluate the Effectiveness of Structured Teaching Program Regarding Knowledge on Disaster Preparedness at Household Level among the Housewives

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Abstract

Disaster Preparedness, whether it's in anticipation of potential weather-related incidents or terrorist incidents requires a skill for that someone has to be trained for. It is almost impossible to prevent the occurrence of natural disasters and their damage. However, it is possible to reduce the impact of disasters by adopting suitable disaster mitigation strategies and disaster preparedness. A study was conducted to evaluate the effectiveness of Structured Teaching Programme (STP) regarding knowledge on disaster preparedness at household level among the housewives in Sonipat City of Haryana. A sample of 80 housewives was selected using simple random sampling technique. The tools used for the data collection was structured interview Schedule to assess the knowledge regarding knowledge on disaster preparedness at household level in context of earthquake, flood , bomb blast, fire incidental measures and risk reduction strategy and disaster preparedness kit. The finding of the study indicated that the mean post test knowledge score was higher than the mean pre test knowledge score respectively. The chi square values calculated indicated that there was significant association of the knowledge score with the educational status, previous experience of disaster, family income and source of knowledge. finally the study has revealed that the structured teaching programme (STP) was effective in enhancing the knowledge of housewives regarding disaster preparedness at household level.

"Disaster preparedness, whether it's in anticipation of potential weather-related incidents or terrorist incidents requires a skill set that in my mind someone has to be trained for"- Bennie Thompson

Operational Definitions

Knowledge

Knowledge refers to the response of housewives to the question stated in the questionnaire. Knowledge is measured in terms of knowledge score.

Evaluate

In this study evaluate refers to the outcome of learning package in terms of knowledge score among housewives.

Structured Teaching Program

It is systematically prepared teaching program for housewives. Teaching program is planned on the topic like flood, earthquake, fire, bomb blast, disaster kit. Appropriate use of AV aids is emphasized in this program.

Disaster

Disaster has been defined as an occurrence disrupting the normal conditions of existence and causing a level of suffering that exceeds the capacity of adjustment of the affected community.

Disaster Preparedness

Disaster Preparedness is a continuous cycle of planning, organizing, training, equipping, exercising, evaluation and improvement activities to ensure effective coordination and the enhancement of capabilities to prevent, protect against, respond to,

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recover from, and mitigate the effects of natural disasters, acts of terrorism, and other man-made disasters.

Disaster Preparedness at Household Level

Disaster preparedness at household level refers to measure taken by family members to face effect and after effect of any natural or manmade disastrous condition.

Housewives

It refers to all females who are not in job and responsible for health and safety of their family members.

Disasters in modern times have transcended borders of nations and class and have a devastating impact in terms of human and material losses. Indian Government has planned disaster program in 2002-2007 which was basically on risk reduction strategy by awareness and technical enhancement strategy in the whole country and especially in 12 risk states which also include north eastern states. Haryana had adopted disaster management scheme to face drought, flood. Various cities of Haryana had developed their action program to face above said dangers. A risk reduction strategy is always beneficial to decrease the after effect of disasters. This strategy is defined as disaster preparedness whether hospital or house hold level preparedness in community based disaster management strategy. So objective of this study was to create awareness among housewives of Sonipat, (Haryana).

Objectives

1. To assess the knowledge among housewives regarding disaster preparedness at house- hold level before and after structured teaching program.
2. To determine the effectiveness of structured teaching program on disaster preparedness at house hold level among housewives.
3. To find out association between the knowledge on disaster preparedness at household level and selected demographic variables.

Hypothesis

H_1: There will be a significant difference between the knowledge score obtained by those who received structured teaching program and those who did not receive structured teaching program.

H_0: There will be not a significant difference between the knowledge score obtained by those who received structured teaching program and those who did not receive structured teaching program.

Research Methodology

Experimental design, before- and- after with control design judges the treatment by the difference between the pre-test and post-test scores comparing with a control group. The research design adopted for the present study.

Setting of the Study

District Sonipat (Haryana)

Variables under the Study

Variable: The dependent Variable is Knowledge of housewives on disaster preparedness at house hold level and independent variable-structured teaching program.

Demographic Variables: Age, Education, Religion, Family Income / Month, Type of Family, Previous Experience of Disaster and Source of Information about Disaster.

Population

The target population comprises of the approximate of urban slum population of 88000 of housewives in Sonipat district in the age group of 21-60 years.

Sampling Design

Stratified sampling technique was found to be appropriate for the present study.

Sample and Sample size

In the present study, samples comprise of housewives between 21-60 years of age residing in urban slum area of Sonipat and were willing to participate.

A total of 80 females (housewives), 40 for experimental group and 40 for control group were taken.

Data Collection Technique

Self structured interview schedule is utilized consisting of 7 items of demographic variable and to assess the knowledge on incidental measures and risk reduction strategy consisting of 18 items. Tool was based on earthquake, fire accidents, bomb blasts, flood causes, effect, risk reduction strategy at household level and preparation of disaster kit.

Data collection Procedure

On 02/4/2011 the house wives were assessed of their knowledge on disaster preparedness through a structured interview schedule in anganwadi centre and at home. Average 25-30 min time **i**s taken for the completion of the interview schedule. The structured teaching program was conducted. The duration of session was 1 hour and 45 minutes the group constituted of 40 housewives. Experimental group was made for teaching in morning in nearby school building. Lecture cum discussion and role play was the method of teaching adopted. Teaching session include type of disaster, various disaster preventive measures and preparation of disaster kit at home for household disaster preparedness, visual aids like flash cards, flip charts and real objects were used. Then a post- test was conducted using the same structured interview schedule to evaluate the effectiveness of the structured teaching program. The investigator found no difficulties during the data collection because of co-operation by school staff.

Results

- In pre test out of 80 housewives, 14 (17.5 per cent) had moderate knowledge, and remaining 66 (82.5per cent) had inadequate knowledge and no one was having adequate knowledge. In pre test, the area wise mean knowledge was 31.662, mean percentage of the score was 12.4 per cent, and Standard deviation was 14.62 of the total score.
- In post test out of 80 housewives 6 (7.5%) had adequate knowledge, 25 (31.25%) had moderate knowledge and remaining 49 (60 per cent) had inadequate in post- test. The mean was 42; mean percentage of the score was 12.5 per cent and with 18.208 standard deviation of the total score.

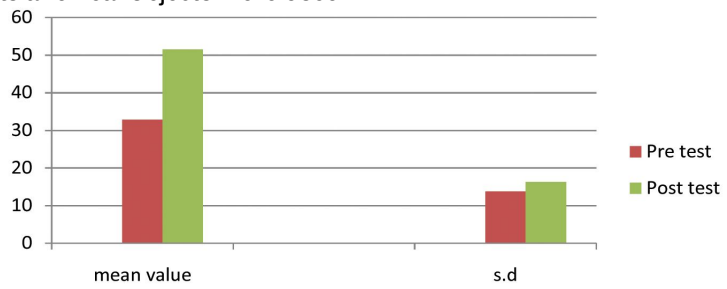

Fig. 1: Pre Test and Post Test Knowledge Level of Respondents on Disaster Preparedness

Table 1: Relationship between knowledge and structured teaching program **N=80**

No. of Respondents	Pre test		Post test		
	E	C	E	C	
Inadequate knowledge	32 (80%)	34 (85%)	16(40%)	33(83.5%)	$\chi 2=16.738$ at df=2, p=5.991
Moderately adequate knowledge	8 (20%)	6 (15%)	18(45%)	7(17.5%)	
Adequate knowledge	0	0	6(15%)	0	

Table 2: Aspect wise pre and post test knowledge on disaster preparedness

Aspect	Statement	Pretest Mean	S.D	Post Test Mean	S.D	nhancement	test value
Knowledge on Disaster Prepare dness	As per tool	3.013	1.436	5.025	1.470	2.012	13.125
Earthquake incidental measures and risk reduction strategy	As per tool	6.925	3.645	12.105	3.760	5.180	12.895
Flood incidental measures and risk reduction strategy	As per tool	9.675	4.807	14.225	4.500	4.550	13.0013
Bomb blast incidental measures and risk reduction strategy	As per tool	2.713	2.445	6.210	2.365	3.497	16.18
Fire incidental measures and risk reduction strategy	As per tool	9.278	4.745	13.005	3.290	3.727	12.139
Disaster preparedness kit	As per tool	0.0025	0.157	1.105	1.170	1.1025	4.18

The mean difference between pre test and post test knowledge reveals significant increase in knowledge after the intervention of structured teaching program.

The Chi-square value stated above clearly. Reject null hypothesis so the researcher concludes that STP was beneficial for increasing the knowledge level of experimental group.

- Among demographic variables, previous experience of disaster, source of information about disasters, family income, and educational level shows clear significant association with knowledge related to disaster preparedness.

The data presented in table shows that there is a significant increase in knowledge level after S.T.P. in all the assessment variables. As regards to earthquake and flood the mean score in pre test, there is tremendous increase in scores under section. The paired 't' test is statistically significant at 0.05 per cent level.

Implication

On the basis of above findings of the study it can be concluded that risk reduction strategy for prevention and after effect of disaster can be significantly achieved at household level by structured teaching program and preparation of disaster kit at home.

- Present study will help public health personals to promote safety among community, families especially in disaster prone states.
- Present study also helps the administrative cell of disaster management to develop action plan and to gain participation of local public to face and prevent disaster together.
- Teaching program will bring cost effective intervention to protect community from disasters.
- Teaching program for disaster preparedness can be involved in field activity for student nurses.
- Every college and institute can plan a disaster preparedness program, can develop evacuation map, disaster kit preparation etc.
- Community leaders can be trained to participate in disaster risk reduction strategy starting from home.

This study actually was done to help the most inaccessible but vital element i.e., housewives of urban slum Sonipat city which was on alert for flood at that time.

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